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## **CLAIMS**

A multicarrier transmission apparatus comprising:

an instruction section that, when a communicating party station receives a signal from a remote station on a carrier frequency, said carrier frequency being used for transmission to said communicating party station, issues an instruction to stop transmission by said carrier frequency and signals within a predetermined bandwidth of said carrier frequency; and

a transmission section that transmits a signal using a plurality of different carrier frequencies and stops signal transmission according to the instruction from said instruction section.

- 2. The multicarrier transmission apparatus according to claim 1, wherein said instruction section includes:
- a first control section that controls signal transmission corresponding to the carrier frequency for communication with the communicating party station;
- a second control section that controls signal transmission corresponding to another carrier frequency within a predetermined bandwidth of the carrier frequency; and

a third control section that issues the instruction to stop the signal transmission at a same timing as a signal transmission timing controlled by said first control section and a signal transmission timing controlled by said second control section.

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- 3. The multicarrier transmission apparatus according to claim 1, wherein said instruction section includes:
- a first control section that controls signal transmission corresponding to the carrier frequency for communication with the communicating party station;
  - a second control section that controls signal transmission corresponding to another carrier frequency within a predetermined bandwidth of said carrier frequency; and
  - a third control section that instructs said first control section to stop transmission and thereafter instructs said second control section to stop transmission, and, after a predetermined period of time passes, instructs said first control section to restart the transmission and thereafter instructs said second control section to restart the transmission.
  - 4. The multicarrier transmission apparatus according to claim 1, wherein said instruction section includes:
- a first control section that controls signal transmission corresponding to the carrier frequency for communication with the communicating party station;
  - a second control section that controls signal transmission corresponding to another carrier frequency within a predetermined bandwidth of said carrier frequency; and a third control section that instructs said first control

section to stop transmission and thereafter instructs said second control section to stop transmission, and, after a predetermined period of time passes, instructs said second control section to restart the transmission and thereafter instructs said first control section to restart the transmission.

5. A base station apparatus having the multicarrier transmission apparatus of claim 1.

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- 6. A mobile communication system comprising:
- a base station apparatus having the multicarrier transmission apparatus of claim 1; and
- a mobile station apparatus that, when a carrier corresponding to a communicating base station apparatus is not in operation, receives a carrier corresponding to a different base station apparatus from said communicating base station apparatus.
- 7. A multicarrier transmission method comprising the steps of:

when a communicating party station receives a signal from a remote station on a carrier frequency, said carrier frequency being used for transmission to said communicating party station, issuing an instruction to stop transmission by said carrier frequency and signals within a predetermined

bandwidth of said carrier frequency; and

transmitting a signal using a plurality of different carrier frequencies and stopping signal transmission according to the instruction.